

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.**

Application Serial Number: 10/583,212  
Source: JFWP  
Date Processed by STIC: 6/27/06

***ENTERED***



IFWP

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/583,212

DATE: 06/27/2006  
TIME: 10:45:21

Input Set : A:\1187-30.ST25.txt  
Output Set: N:\CRF4\06272006\J583212.raw

3 <110> APPLICANT: CropDesign N.V.  
5 <120> TITLE OF INVENTION: Plants having modified growth characteristics and method for  
6 making the same  
8 <130> FILE REFERENCE: 1187-30  
C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/583,212  
C--> 10 <141> CURRENT FILING DATE: 2006-06-16  
10 <150> PRIOR APPLICATION NUMBER: PCT/EP2004/053594  
11 <151> PRIOR FILING DATE: 2004-12-17  
13 <150> PRIOR APPLICATION NUMBER: EP 03104764.0  
14 <151> PRIOR FILING DATE: 2003-12-17  
16 <150> PRIOR APPLICATION NUMBER: US 60/531,866  
17 <151> PRIOR FILING DATE: 2003-12-22  
19 <160> NUMBER OF SEQ ID NOS: 7  
21 <170> SOFTWARE: PatentIn version 3.3  
23 <210> SEQ ID NO: 1  
24 <211> LENGTH: 1380  
25 <212> TYPE: DNA  
26 <213> ORGANISM: Nicotiana tabacum  
28 <400> SEQUENCE: 1

29 atgggtgaca tgaaggataa agtcaaaggg ttcatgaaaa aagtcacatc ttcttcttca	60
31 ggttaagtta aaggccaaagg tagggttttg ggtggttcat cttcttcagg accctcaaat	120
33 catgtcaata attttcatc acatccccta aatacaaaggc aagatcaaca accttcataat	180
35 acaaaaactt cgcctcaaaa accaagtaat tctgatcaaa gaattgagaa tataatgtgaa	240
37 attcagttca acaaaagtga atcaaaggat ggtttgatc catttggta attagtcaat	300
39 tctggaaaga gaaacccaaa agggatttca cttactaatg tggttgaatg ccctgtctgt	360
41 ggttagtggtt ttgttctga agaagaggtg tcaactcata ttgatagctg ttaagttct	420
43 gaagtgtctt ctaatttggg agttgaaagt aaagttgaag ttaaaagtga attggaaaca	480
45 tgggttagtg catatgttc agggaaagccc tcagaagggt cagttgaatg ggtcattaag	540
47 ttgttaaaga atattgtgaa ggaaccagag aatgccaagt tttagaaaaat aaggatgggg	600
49 aatccaaaaa taaaagggtgc tataagggtat gttgttaggag gagttggagct attgaaattt	660
51 gttggatttg agttgaaaga agaaggtgg gaaatttggg ctgtgatgga tggtccttct	720
53 gaagaacaac ttgttatgtc taagaatgtt gtttactct tggaccgaa gaagggtgaa	780
55 gagttggcgt ctttatccc agttaaggcg agtgaaccag ttgagccgaa gaagattgtat	840
57 agacagattc gagtgttctt ttctgttccc gagagcgtat cagaaaaat tgagctacct	900
59 gattccttct ttaacctctc acgtgaggaa ttgagaagag aagcagagat gaggaagaag	960
61 aaatttagaag attccaaattt attgattccat aaatcttatac gggaaaagca ggccaaagct	1020
63 gcaagaaaaga agtacacaaaa atccattatc cgtgtacagt ttccagatgg agcattgttt	1080
65 caaggtgtct ttctacccatc ggagccaaact agtgcctttt atgagttgt gacgcagcg	1140
67 tttaaaggaaac caagctttaga gttcaattt ttacatccgg tgcttggtaa aaagcgggtg	1200
69 attccccatt ttccagctgc tggggagagg gctgttaacag ttgaagagga ggatttggtt	1260
71 cctgcagctc tactcaaatt taaaacccatc gaaacagatt ctgttggtt tactggtctt	1320
73 tggtaatgagc ttcttgaaat tagcgagccc ctcgagaccg gatcagttgc ttccctcgtaa	1380

76 <210> SEQ ID NO: 2

RAW SEQUENCE LISTING  
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Input Set : A:\1187-30.ST25.txt  
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77 <211> LENGTH: 459  
78 <212> TYPE: PRT  
79 <213> ORGANISM: Nicotiana tabacum  
81 <400> SEQUENCE: 2  
83 Met Gly Asp Met Lys Asp Lys Val Lys Gly Phe Met Lys Lys Val Thr  
84 1 5 10 15  
87 Ser Ser Ser Ser Gly Lys Phe Lys Gly Gln Gly Arg Val Leu Gly Gly  
88 20 25 30  
91 Ser Ser Ser Ser Gly Pro Ser Asn His Val Asn Asn Phe Ser Ser His  
92 35 40 45  
95 Pro Leu Asn Thr Arg Gln Asp Gln Gln Pro Ser Tyr Thr Lys Thr Ser  
96 50 55 60  
99 Pro Gln Lys Pro Ser Asn Ser Asp Gln Arg Ile Glu Asn Ile Cys Glu  
100 65 70 75 80  
103 Ile Gln Phe Asn Lys Ser Glu Ser Lys Asp Gly Phe Asp Pro Phe Gly  
104 85 90 95  
107 Glu Leu Val Thr Ser Gly Lys Arg Asn Pro Lys Gly Tyr Ser Leu Thr  
108 100 105 110  
111 Asn Val Phe Glu Cys Pro Val Cys Gly Ser Gly Phe Val Ser Glu Glu  
112 115 120 125  
115 Glu Val Ser Thr His Ile Asp Ser Cys Leu Ser Ser Glu Val Ser Ser  
116 130 135 140  
119 Asn Leu Gly Val Glu Ser Lys Val Glu Val Lys Ser Glu Leu Glu Thr  
120 145 150 155 160  
123 Cys Val Ser Ala Tyr Val Ser Gly Lys Pro Ser Glu Gly Ser Val Glu  
124 165 170 175  
127 Val Val Ile Lys Leu Leu Lys Asn Ile Val Lys Glu Pro Glu Asn Ala  
128 180 185 190  
131 Lys Phe Arg Lys Ile Arg Met Gly Asn Pro Lys Ile Lys Gly Ala Ile  
132 195 200 205  
135 Gly Asp Val Val Gly Val Glu Leu Leu Glu Phe Val Gly Phe Glu  
136 210 215 220  
139 Leu Lys Glu Glu Gly Glu Ile Trp Ala Val Met Asp Val Pro Ser  
140 225 230 235 240  
143 Glu Glu Gln Leu Val Met Leu Lys Asn Val Val Ser Leu Leu Glu Pro  
144 245 250 255  
147 Lys Lys Val Glu Leu Ala Ser Leu Ser Gln Val Lys Ala Ser Glu  
148 260 265 270  
151 Pro Val Glu Pro Lys Lys Ile Asp Arg Gln Ile Arg Val Phe Phe Ser  
152 275 280 285  
155 Val Pro Glu Ser Val Ala Ala Lys Ile Glu Leu Pro Asp Ser Phe Phe  
156 290 295 300  
159 Asn Leu Ser Arg Glu Glu Leu Arg Arg Glu Ala Glu Met Arg Lys Lys  
160 305 310 315 320  
163 Lys Leu Glu Asp Ser Lys Leu Leu Ile Pro Lys Ser Tyr Arg Glu Lys  
164 325 330 335  
167 Gln Ala Lys Ala Ala Arg Lys Lys Tyr Thr Lys Ser Ile Ile Arg Val  
168 340 345 350  
171 Gln Phe Pro Asp Gly Ala Leu Leu Gln Gly Val Phe Leu Pro Ser Glu

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Input Set : A:\1187-30.ST25.txt  
Output Set: N:\CRF4\06272006\J583212.raw

172 355 360 365  
175 Pro Thr Ser Ala Leu Tyr Glu Phe Val Ser Ala Ala Leu Lys Glu Pro  
176 370 375 380  
179 Ser Leu Glu Phe Glu Leu Leu His Pro Val Leu Val Lys Lys Arg Val  
180 385 390 395 400  
183 Ile Pro His Phe Pro Ala Ala Gly Glu Arg Ala Val Thr Val Glu Glu  
184 405 410 415  
187 Glu Asp Leu Val Pro Ala Ala Leu Leu Lys Phe Lys Pro Ile Glu Thr  
188 420 425 430  
191 Asp Ser Val Val Phe Thr Gly Leu Cys Asn Glu Leu Leu Glu Ile Ser  
192 435 440 445  
195 Glu Pro Leu Glu Thr Gly Ser Val Ala Ser Ser  
196 450 455  
199 <210> SEQ ID NO: 3  
200 <211> LENGTH: 1311  
201 <212> TYPE: DNA  
202 <213> ORGANISM: Saccharum officinarum  
205 <220> FEATURE:  
206 <221> NAME/KEY: misc\_feature  
207 <222> LOCATION: (277)..(279)  
208 <223> OTHER INFORMATION: n can be any nucleotide  
210 <400> SEQUENCE: 3  
211 atgatgaagg acaagatgaa ggagttcatg aagaaggta cctcctccgg gtccgggacc 60  
213 ccctcctcct tcaagggcac ctcccacgtc ctcggctccg gccccctcccc ctcctcctcc 120  
215 caccggctg cccgctcctc aaacccttagc ccaaaccctca ggcccgctcc taagcggacc 180  
217 tcgcccaccta ccccgccccac tttaaccacc gattgaccc ctttcacgccc cctcgctcgc 240  
W--> 219 tactcctccc gccggcccgaa cgcgaacggc accgcgnnng ccgtcgccac cgtcgcgtgc 300  
221 cccagctgcg gagacgcgtt tccgtccgag ctcgcccgtc ccgagcatct cgacggctgc 360  
223 ctcgcgtcgg cggggggcgc cccgcgcgc gcccgcgt acctcgccgc cgacccgcct 420  
225 cccggccggc cctccgtaga ggtggtaaaa cgcctgctgg gcaacctgct ccgggagccc 480  
227 ggcaacgata agttcaggcg ggtgagattt ggttaaccgc ggatcaagga ggcctggca 540  
229 gacaggatg gcggggatg gtcctggag gccgtcggt tcacagttgg ggatgaggc 600  
231 ggggagccct tcgcccgtat ggacgaagtg cctagcgacc cttagctcaa cgggatcagg 660  
233 agggccgtcc tcctgctcga gggggcacac ccctctgcgc ctccagtgaa ggcggaggct 720  
235 gaggccaagg agagctgcag caatgtgtct gacgtgcagg agggtgctaa gactattgtat 780  
237 cggcagattc gggattttgt ctctgttccct gggagttcta tggcacaaaaa tgatgtacca 840  
239 gattttttt acaagcttag tggtgaggag ataaggaatg aagcaaagat gaggaggaa 900  
241 aggttagaac aatctcgatt gctgatacca aagtcttaca aggagaaaca ggcattggct 960  
243 gctcgacaga agtataaaca agcagtcatt cgagttcagt ttccagatag aatgattctt 1020  
245 cagggcatat tccttaccagg agaggccact agttcactgt atgagttcgt cacatctgt 1080  
247 ctgaagcaat caggtttggaa attcgaactt atctctccag ccataccaa gccacgtgtg 1140  
249 gtgccccatt ttccaaaccc gggagagcgg gcacgcaccc tgcaagagga ggagctggc 1200  
251 ccatctgcgc tcctcaagtt cattcccaag gagactgatt ccatggtttt caccggtttg 1260  
253 cttgtatgagc ttctcatggc cagtgagccg cttccgtctg catcacaatg a 1311  
256 <210> SEQ ID NO: 4  
257 <211> LENGTH: 436  
258 <212> TYPE: PRT  
259 <213> ORGANISM: Saccharum officinarum  
262 <220> FEATURE:

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PATENT APPLICATION: US/10/583,212

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Input Set : A:\1187-30.ST25.txt  
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263 <221> NAME/KEY: MISC\_FEATURE  
264 <222> LOCATION: (93)..(93)  
265 <223> OTHER INFORMATION: Xaa can be any amino acid  
267 <400> SEQUENCE: 4  
269 Met Met Lys Asp Lys Met Lys Glu Phe Met Lys Lys Val Thr Ser Ser  
270 1 5 10 15  
273 Gly Ser Gly Thr Pro Ser Ser Phe Lys Gly Thr Ser His Val Leu Gly  
274 20 25 30  
277 Ser Gly Pro Ser Pro Ser Ser His Pro Ala Ala Arg Ser Ser Asn  
278 35 40 45  
281 Pro Ser Pro Asn Leu Arg Pro Ala Pro Lys Arg Thr Ser Pro Pro Thr  
282 50 55 60  
285 Pro Pro Thr Leu Thr Thr Asp Leu Thr Ser Phe Thr Pro Leu Val Cys  
286 65 70 75 80  
W--> 289 Tyr Ser Ser Arg Arg Pro Asp Ala Asn Gly Thr Ala Xaa Ala Val Ala  
290 85 90 95  
293 Thr Val Ala Cys Pro Ser Cys Gly Asp Ala Phe Pro Ser Glu Leu Ala  
294 100 105 110  
297 Val Ser Glu His Leu Asp Gly Cys Leu Ala Ser Ala Gly Gly Ala Arg  
298 115 120 125  
301 Ala Arg Ala Ala Ala Tyr Leu Ala Ala Asp Pro Pro Pro Pro Ala Ala  
302 130 135 140  
305 Ser Val Glu Val Val Lys Arg Leu Leu Gly Asn Leu Leu Arg Glu Pro  
306 145 150 155 160  
309 Gly Asn Asp Lys Phe Arg Arg Val Arg Leu Gly Asn Pro Arg Ile Lys  
310 165 170 175  
313 Glu Ala Leu Ala Asp Arg Asp Gly Gly Val Glu Leu Leu Glu Ala Val  
314 180 185 190  
317 Gly Phe Thr Val Gly Asp Glu Gly Gly Glu Pro Phe Ala Val Met Asp  
318 195 200 205  
321 Glu Val Pro Ser Asp Pro Arg Leu Asn Gly Ile Arg Arg Ala Val Leu  
322 210 215 220  
325 Leu Leu Glu Gly Ala His Pro Ser Ala Pro Pro Val Lys Ala Glu Ala  
326 225 230 235 240  
329 Glu Ala Lys Glu Ser Cys Ser Asn Val Ser Asp Val Gln Glu Gly Ala  
330 245 250 255  
333 Lys Thr Ile Asp Arg Gln Ile Arg Val Phe Val Ser Val Pro Gly Ser  
334 260 265 270  
337 Ser Met Ala Gln Asn Asp Val Pro Asp Ser Phe Tyr Lys Leu Ser Gly  
338 275 280 285  
341 Glu Glu Ile Arg Asn Glu Ala Lys Met Arg Arg Glu Arg Leu Glu Gln  
342 290 295 300  
345 Ser Arg Leu Leu Ile Pro Lys Ser Tyr Lys Glu Lys Gln Ala Leu Ala  
346 305 310 315 320  
349 Ala Arg Gln Lys Tyr Lys Gln Ala Val Ile Arg Val Gln Phe Pro Asp  
350 325 330 335  
353 Arg Met Ile Leu Gln Gly Ile Phe Leu Pro Gly Glu Ala Thr Ser Ser  
354 340 345 350  
357 Leu Tyr Glu Phe Val Thr Ser Ala Leu Lys Gln Ser Gly Leu Glu Phe

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Input Set : A:\1187-30.ST25.txt  
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358        355        360        365  
 361 Glu Leu Ile Ser Pro Ala Ile Pro Lys Pro Arg Val Val Pro His Phe  
 362        370        375        380  
 365 Pro Asn Pro Gly Glu Arg Ala Arg Thr Leu Gln Glu Glu Glu Leu Val  
 366 385        390        395        400  
 369 Pro Ser Ala Leu Leu Lys Phe Ile Pro Lys Glu Thr Asp Ser Met Val  
 370        405        410        415  
 373 Phe Thr Gly Leu Leu Asp Glu Leu Leu Met Ala Ser Glu Pro Leu Pro  
 374        420        425        430  
 377 Ala Ala Ser Gln  
 378        435  
 381 <210> SEQ ID NO: 5  
 382 <211> LENGTH: 3048  
 383 <212> TYPE: DNA  
 384 <213> ORGANISM: Artificial sequence  
 386 <220> FEATURE:  
 387 <223> OTHER INFORMATION: expression cassette comprising GRUBX (1011-2390) operably linked  
 388        to the prolamine promoter (1-654) and the T-Zein + T-Rubisco  
 389        deltaG terminator (2615-2808 and 2852-3048)  
 391 <400> SEQUENCE: 5  
 392 cttctacatc ggcttaggt tagcaacacg actttattat tattattattt attattattt 60  
 394 ttattttaca aaaatataaa atagatcagt ccctcaccac aagtagagca agttggtag 120  
 396 ttattgtaaa gttctacaaa gctaatttaa aagttattgc attaacttattt ttcattttac 180  
 398 aaacaagagt gtcaatggaa caatgaaaac catatgacat actataattt tgttttatt 240  
 400 atgaaaattt tataattcaa agagaataaa tccacatagc cgtaaaggcc tacatgtgg 300  
 402 gcattaccaa aatatatata gcttacaaaaa catgacaagc ttatgtttgaa aaatttgcatt 360  
 404 ccttattcaca ttgacacata aagttagtgc tgagtcataa tattattttcc tttgttaccc 420  
 406 atcatgtata tatgatagcc acaaaaggttac tttgtatgtat atatcaaaga acatttttag 480  
 408 gtgcacctaa cagaatatcc aaataatatg actcacttag atcataatag agcatcaagt 540  
 410 aaaactaaca ctctaaagca accgatggaa aagcatctat aaatagacaa gcacaatgaa 600  
 412 aatcctcata atccttcacc acaattcaaa tattatagtt gaagcatatg agtaattttaa 660  
 414 atcaacttagg gatacataaa gtttgcataaa aaaaggcaggc tggtaaccggc ccggatttcc 720  
 416 cgggatatcg tcgaccacg cgtccgccaa tatcagattt ctttcatgaa ctccacttcc 780  
 418 aatttctcat tgcttcttcc tcccatttcc acctccaaag ccatccttcc agaaaacctt 840  
 420 gttccttaca tttcttagcc caaaaaaaaga ttcccatctc aattccacaa aaaaacacaa 900  
 422 ggagatctaa ggaaattccc cgcctctata tatagagagg tggattttttt cctgaatttg 960  
 424 gttgaattt attgatttgc agattttgtt gagagggtgt tattgaaaaa atgggtgaca 1020  
 426 tgaaggataa agtcaaagggtt ttcattttttt aagtcacatc ttcttcttca ggttaagttt 1080  
 428 aaggccaaagg tagggttttt ggtggttcat cttcttcagg accctcaaat catgtcaata 1140  
 430 attttctatc acatcccata aatacaaggc aagatcaaca accttcatat acaaaaactt 1200  
 432 cgcctcaaaa accaagtaat tctgatcaaa gaatttggaa tatatgtgaa attcagttca 1260  
 434 acaaaaaggta atcaaaggat gttttgtatc cattttgtga attagtcaat tctggaaaga 1320  
 436 gaaacccaaa agggttattca cttactaatg tgtttgaatg ccctgtctgt ggttagtgg 1380  
 438 ttgtttctga agaagaggtt tcaactcata ttgatagctg tttaagttct gaagtgtctt 1440  
 440 ctaatttggg agttgaaagt aaagttgaag tttaaaaggta attggaaaca tgtgttagtg 1500  
 442 catatgtttc agggaaagccc tcagaagggtt cagttgaatg ggtcattaag ttgtttaaaga 1560  
 444 atattgtgaa ggaaccagag aatgccaatg tttagaaaaat aaggatgggg aatccaaaaaa 1620  
 446 taaaagggtgc tataagggtat gttgttaggag gatggagct attggaaattt gttggatttg 1680  
 448 agttgaaaga agaagggtggg gaaatttggg ctgtgatgga ttgttcccttctt gaagaacaac 1740

**RAW SEQUENCE LISTING ERROR SUMMARY**      DATE: 06/27/2006  
**PATENT APPLICATION: US/10/583,212**      TIME: 10:45:22

Input Set : A:\1187-30.ST25.txt  
Output Set: N:\CRF4\06272006\J583212.raw

**Please Note:**

~~Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.~~

Seq#:3; N Pos. 277, 278, 279  
Seq#:4; Xaa Pos. 93 [

**VERIFICATION SUMMARY**

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DATE: 06/27/2006

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L:10 M:270 C: Current Application Number differs, Replaced Current Application No

L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:219 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:240

L:289 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:80